

Appl. No.: 10/616,024
Amendment Dated August 10, 2005
Reply to Office Action of May 12, 2005

REMARKS/ARGUMENTS

Claims 1 and 3 have been amended to overcome to points of indefiniteness noted in the Official Action. In addition, Claim 1 has been amended to more specifically define Applicant's invention and to further distinguish it from the cited prior art. Favorable reconsideration by the Examiner is solicited.

Claims 1 and 4-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Farfoud et al. U.S. Patent No. 5,777,535 in view of Ciuba et al. U.S. Patent No. 4,675,215. The Farfoud reference describes a coaxial cable and in one sentence (Col. 2, lines 11-13) mentions that flooding and/or corrosion-inhibiting compounds may be applied to the outer shield of the cable. However, as the Examiner recognizes, the Farfoud reference does not disclose any details about the corrosion-inhibiting compounds. The Ciuba reference describes a corrosion-inhibiting composition and method which is useful for protecting metal surfaces, such as carbon steel surfaces, from the formation of rust or other corrosion. The Ciuba composition and method entails applying a relatively thick layer of the coating composition to the metal surface. Typically, the coating is from about 1 to 10 mils in thickness. The composition includes a grease-like composition containing an organic sulfonate salt as the corrosion-inhibiting compound. This is blended with from about 5 to 25% by weight of a drying oil such as tung oil or linseed oil and with out 10 to 90% by weight of an organic solvent. As suitable organic solvents, Ciuba mentions aliphatic and aromatic hydrocarbons, aliphatic naphthas, ketones, alcohols, glycols and chlorinated solvents. A particularly preferred organic solvent is mineral spirits. The composition also includes lesser amounts of other ingredients, including two different metal driers.

Nowhere in the Ciuba reference is there any disclosure or suggestion that the corrosion-inhibiting composition is suitable for use in a cable. Rather, according to the Ciuba teachings, the coating composition is intended to be applied in a relatively thick layer to exposed metal surfaces used in a seawater environment in marine and off-shore drilling applications (column 1 line 65 to column 2 line 2). Moreover, the Ciuba composition is formulated to include a grease-like thixotropic inorganic-organic complex in a drying oil that will cure and harden, typically

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under ambient conditions, to form a protective coating layer on the exposed metal surface to which it is applied.

The Examiner considers that it would have been obvious in view of the Ciuba reference to use the Ciuba corrosion-inhibiting composition in the cable described by Farfoud. This obviousness rejection is fundamentally flawed in several significant respects.

First, the basic premise of this rejection is that it would be obvious to use any known corrosion-inhibiting composition in a cable such as that described by Farfoud. There are untold numbers of known corrosion-inhibiting compositions. It is unrealistic and unreasonable to assume that all known corrosion-inhibiting compositions would perform satisfactorily in a cable. Nothing in either the Farfoud reference or the Ciuba reference would lead one of ordinary skill in the art to select the particular corrosion-inhibiting composition of Ciuba out of all of the many known corrosion-inhibiting compositions available to the person of ordinary skill in the art. The Farfoud reference gives no guidance at all to what kind of corrosion-inhibiting composition should be used, and the Ciuba reference describes a composition that is intended for use in an environment quite different from a coaxial cable. In a coaxial cable, the electrical properties of each component in the cable can affect the performance of the cable. The cable carries high frequency RF signals that have an affect upon polar molecules within the cable and this can produce signal attenuation or other undesirable electrical performance. Therefore, in the design of a coaxial cable, the proper selection of materials is very important. Extreme care is exercised to avoid introducing materials or compounds into the cable that would adversely affect the cable's electrical performance. These considerations are quite different from the considerations that would lead to selecting a corrosion inhibiting composition for the marine and offshore drilling applications of the Ciuba reference.

Thus, in the absence of some teaching in the references themselves that would instruct the person of ordinary skill in the art to select the particular composition of Ciuba out of the vast numbers of corrosion inhibiting compositions that are known and available, this obviousness rejection is essentially amounts to the contention that it would be "obvious to try" the Ciuba corrosion inhibiting composition as the specific corrosion inhibitor for the Farfoud cable. It is well accepted that "obvious to try" is not an appropriate standard for an obviousness rejection.

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The Examiner has failed to establish a *prima facie* case of obviousness. In particular, in order to establish a *prima facie* case of obviousness, the Examiner must show that there exists a motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to arrive at the claimed invention. It must be further shown that there is a reasonable expectation of success. Obvious to try is not the standard.

As noted above, there is nothing in the Farfoud and Ciuba references themselves that would serve as a motivation to select the Ciuba corrosion-inhibiting composition out of all of the many corrosion-inhibiting compositions that are known in the art. Additionally, nothing contained in either of the cited references would provide the person of ordinary skill in the art with any expectation that the Ciuba corrosion-inhibiting composition could be successfully used in a coaxial cable.

Also, the combination of Farfoud with Ciuba does not result in a method meeting all of the limitations set forth in Applicant's claims. Claim 1 as now presented calls for applying a corrosion-inhibiting composition to the outer conductor of a cable, and wherein the corrosion-inhibiting composition comprises a corrosion-inhibiting compound dispersed in a paraffinic oil, and a stabilizer selected from the group consisting of propylene glycol ethers, propylene glycol ether acetates, ethylene glycol ethers and ethylene glycol ether acetates, and wherein the corrosion-inhibiting compound is present in an amount from about 5 to 40% by weight, the paraffinic oil is present in an amount from 50 to 90% by weight and the stabilizer is present in an amount from about 1 to 10% by weight.

The Ciuba corrosion-inhibiting composition requires, in addition to the corrosion-inhibiting compound, from 5 to 25% by weight of at least one drying oil and from 10 to 90% by weight of an organic solvent. The Ciuba composition does not include a paraffinic oil in an amount from 50 to 90% by weight of the composition and the specified stabilizer in an amount from 1 to 10% by weight.

In the Ciuba reference, the disclosed glycol compounds are considered as a solvent and are used at a concentration of from about 10 to 90% by weight, preferably about 30 to 60% by weight. Also, the mineral spirits mentioned at Col. 4 of the Ciuba reference are considered a

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solvent and a preferred alternative to the glycol compounds. Following the Ciuba teachings would not result in achieving the composition claimed by Applicant, wherein the composition contains from 50 to 90% by weight of a paraffinic oil and from 1 to 10% by weight of a stabilizer selected from the group consisting of propylene glycol ethers, propylene glycol ether acetates, ethylene glycol ethers and ethylene glycol ether acetates. Further, contrary to the comments by the Examiner, the mineral spirits mentioned by Ciuba at Col. 4, lines 42-58 are not a paraffinic oil as claimed by Applicant.

For the reasons noted, the combination of Farfoud and Ciuba do not meet all of the limitations of Claim 1. Accordingly, Claim 1 and the claims dependent therefrom clearly distinguish over the prior art and should be in condition for allowance.

Claim 3 defines a further aspect of Applicant's invention, wherein a polymer melt is applied around the outer conductor at an elevated temperature to form the outer jacket 50, and wherein the application of this polymer melt also serves to heat the cable and to evaporate the oil and stabilizer in the corrosion-inhibiting composition. This aspect of Applicant's invention is neither taught by nor obvious from the Farfoud reference, considered singly or in combination with the Ciuba reference.

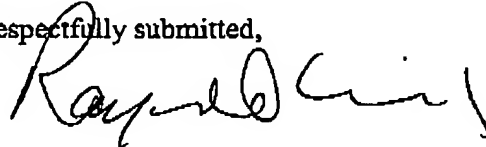
Claims 5 and 6 specify particular stabilizer compounds which are not described or suggested by the cited prior art.

In view of the amendments to the claims and the foregoing comments, it is respectfully submitted that the claims patentably distinguish over the cited prior art. Reconsideration by the Examiner, withdrawal of the rejection, and formal notification of the allowance of all claims as now presented are earnestly solicited.

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It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

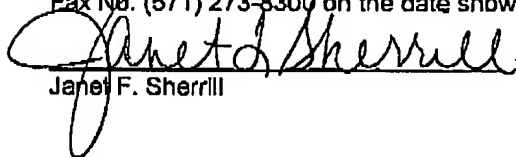


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Janet F. Sherrill

August 10, 2005
Date